



VAST 2

View, Search, Control,
Integrate



Cybersecurity Management Solution • Smart Search II • Smart VCA •
Add-on Solutions • Video Wall • Multi-platform Client

VIVOTEK's VAST 2 is an easy to use IP video management software (VMS). To meet the real-world needs of users, it comes with exciting advancements such as easy operation on single or multiple monitors, custom layout to accommodate both corridor and panorama orientations, rapid export of multi-channel video and the acquisition of VCA analytics & cybersecurity attack events from VIVOTEK cameras and substations (such as NVRs) in a hierarchical system structure.

VAST 2 is integrated with VIVOTEK's Cybersecurity Management Solution, Smart VCA and Smart Search II. Cybersecurity attack and Smart VCA events can be searched and replayed in Event Search and be set as triggers in Alarm Management. In addition, Smart Search II allows users to search for specific object or people related videos. It also provides the option to draw a custom zone to focus on any critical area. To efficiently solve users' problems and system bugs, VAST 2 provides an automatic problem feedback mechanism to directly connect to VIVOTEK's FAE system. Any feedback will be handled instantly.

Utilizing automatic configuration wizards, VAST 2 can significantly reduce the time and cost of installing multiple camera surveillance systems. With more advanced setup features such as logical tree, camera configuration, archive management and recording schedule backup solutions, VAST 2 provides easy and intuitive UI with rich functionality to meet the needs of any customer. For efficient video management, VAST 2 also provides multi-layered, interactive 2.5D maps, and sophisticated alarm management. Furthermore, VAST 2's add-on solutions include failover protection, a transportation solution with GPS coordinates, transaction solutions with POS integration and Data Magnet integration solutions. All of these features combine to make VAST 2 the perfect VMS for use in retail, banking, transportation, and industrial applications.

Key Features

- Multiple Monitor Support with Tabbed Windows
- Supports Windows Active Directory
- Automatic Problem Feedback Mechanism
- Add-on Solutions: Failover, Transportation, Transaction and Data Magnet
- Auto Streaming Size for Clients, Saving Decoding and Streaming Bandwidth
- Multiple Fisheye Dewarp Modes
- Customizable Layouts
- Video Event Bookmarks with Evidence Lock
- Log/Alarm Search and Export
- New Matrix for Video Wall Solution
- System Overview Dashboard
- macOS Supported for Client
- Enhanced User Management
- Customized Viewing Information
- Instant System Status Display

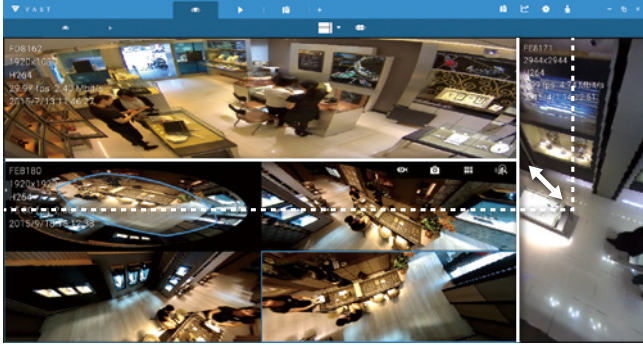
New Features

- Smart Search II
- Event Search: General, Smart VCA and Trend Micro IoT Security Events
- Alarm Management: Smart VCA, Trend Micro IoT Security and New General Events Integration
- Alarm List Enhancement: Thumbnail View, Status and Comment
- Manually Export Alarm Clips
- Automatically Lock Video Clips when Alarm Triggered
- Send Http Requests to All Selected Cameras by Setting One Alarm
- Manually Refresh Devices to Obtain the Newest Settings
- View Cell with Embedded E-Map
- Standalone Player Improvement

Highlight Features

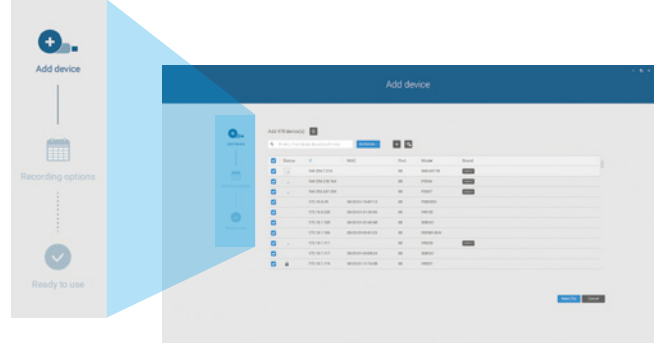
Intuitive UI Design

Custom layout adjustment and fisheye ROI control for better security management experience.



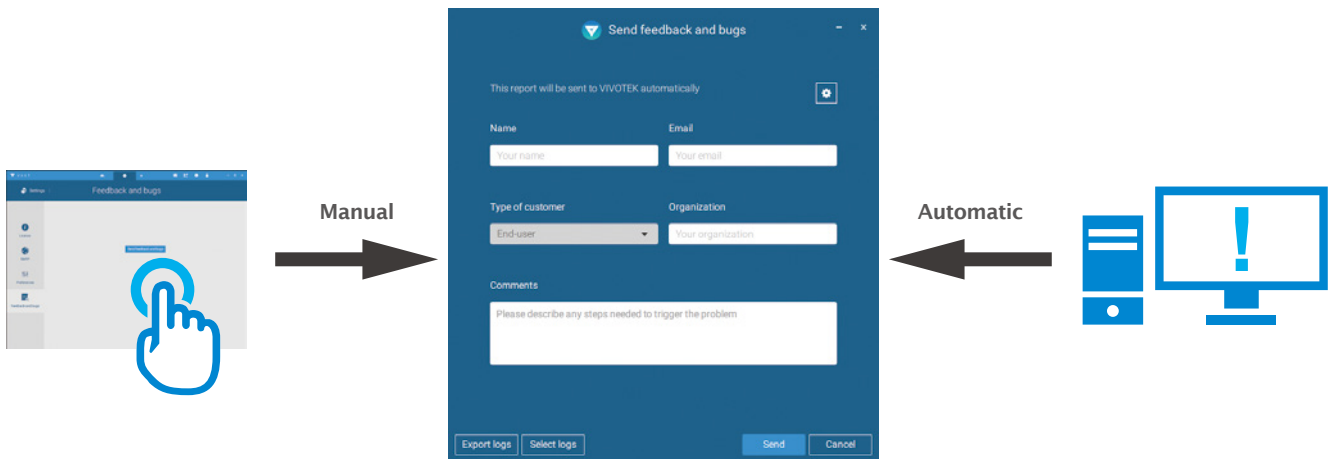
Auto Setup

Easy configuration through a fully automated process, saving users' time and cost to install surveillance devices.



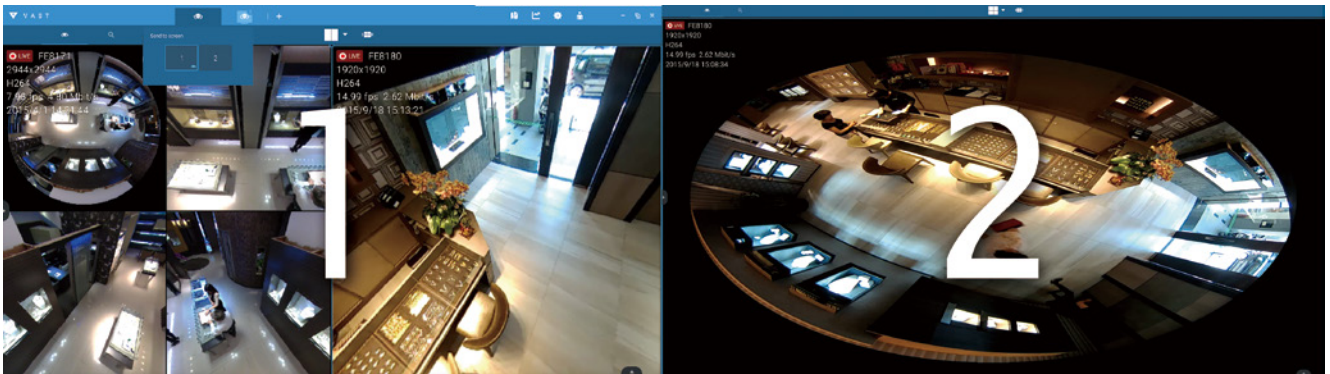
Problem Feedback Mechanism

Quickly detect system problem and feedback to VIVOTEK Technical Support via automatic popup or manual operation.



Multi-Monitor & Tabs

Manage unlimited tasks with multiple screens for intuitive and easy surveillance.



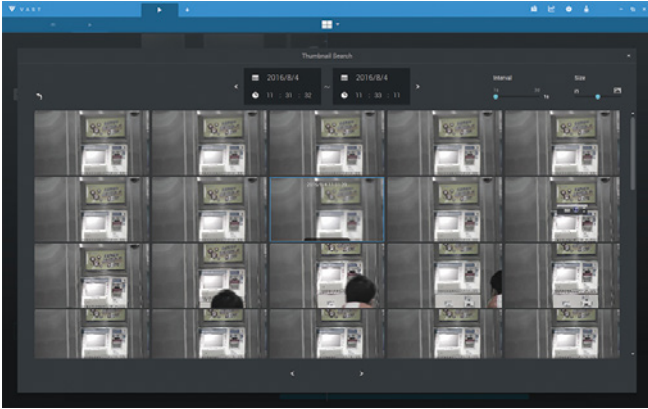
Screen 1

Screen 2

Highlight Features

Thumbnail Search

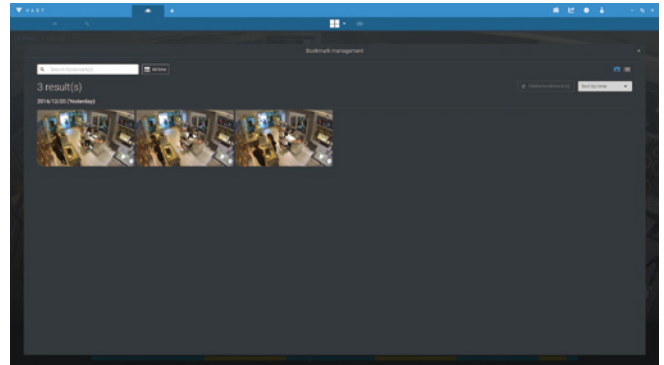
Efficiently search suspicious video and specific events with thumbnail view.



Thumbnail Search

Evidence Lock

Manually extend the retention time for video recordings and manage a high number of investigation scenarios.



2.5D Visualization eMap

Multiple layers and camera FOV views allow users to instantly pinpoint a selected camera and the location on the map.



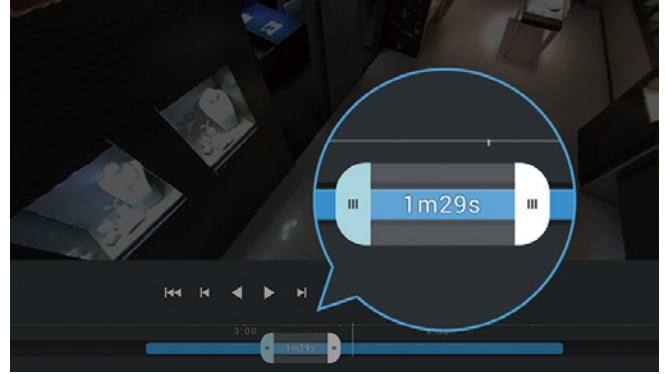
Highlight Features

Evidence Export

Easily export multiple video recording with custom layouts in a specific time period or instant snapshot with a fast click.



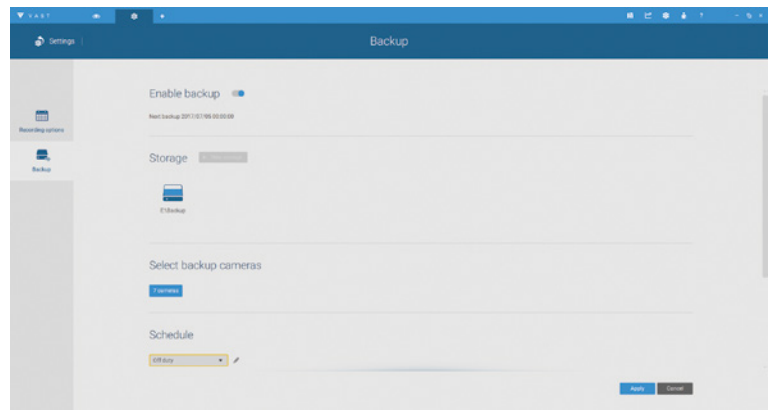
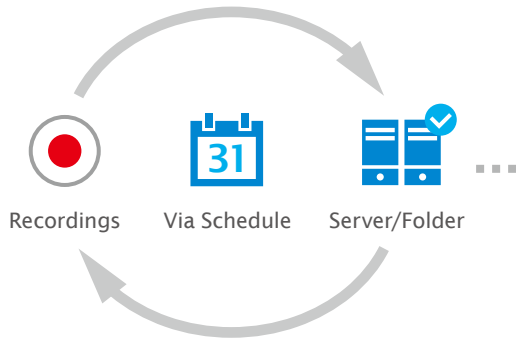
Snapshot



Video

Scheduled Backup

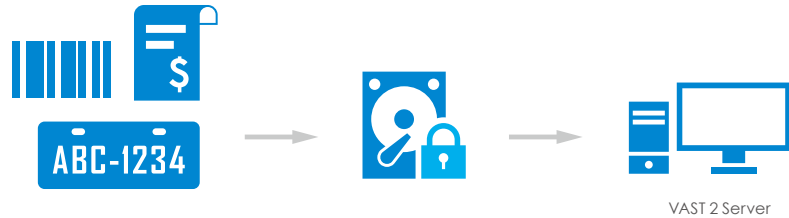
Automatically back-up of the recorded video clip to another network storage device.



Highlight Features

Data Magnet

Data Magnet offers the capability to integrate third-party data source into VAST 2, which provides quick access to data along with video. This supports simultaneous display with live event monitoring. All events will be stored for later searches.



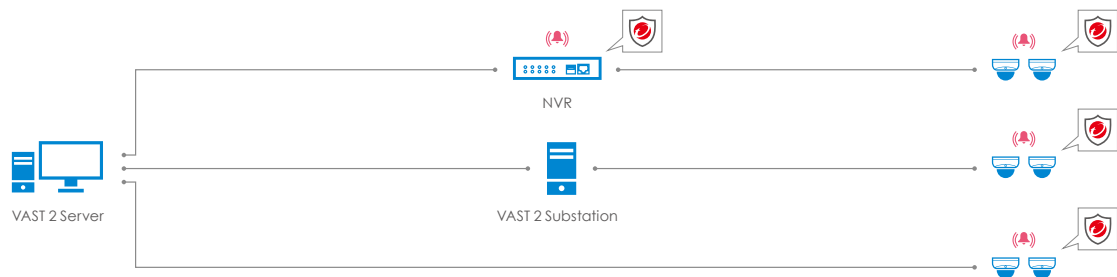
All New Matrix

New Matrix provides a video wall feature to view cameras streaming from a VAST 2 server. Users can manage the matrix client(s) directly through the VAST 2 server.



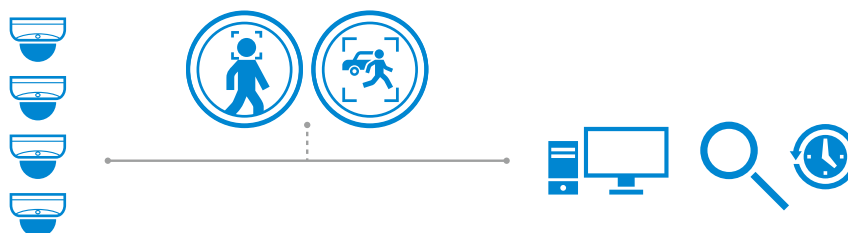
Cybersecurity Management Solution

Integrate cybersecurity attack events from VIVOTEK cameras and NVR to VAST 2 alarm management. In addition to alarm action and notification, VAST 2 becomes the central management site to recognize attack trends and status, as well as acquire attack information.



Smart Search II

Allow users to search for objects or people related videos according to the VCA (Video Content Analysis) metadata from camera videos. Users can quickly sort through large amounts of evidence to find precisely what is needed.



Add-on Solutions

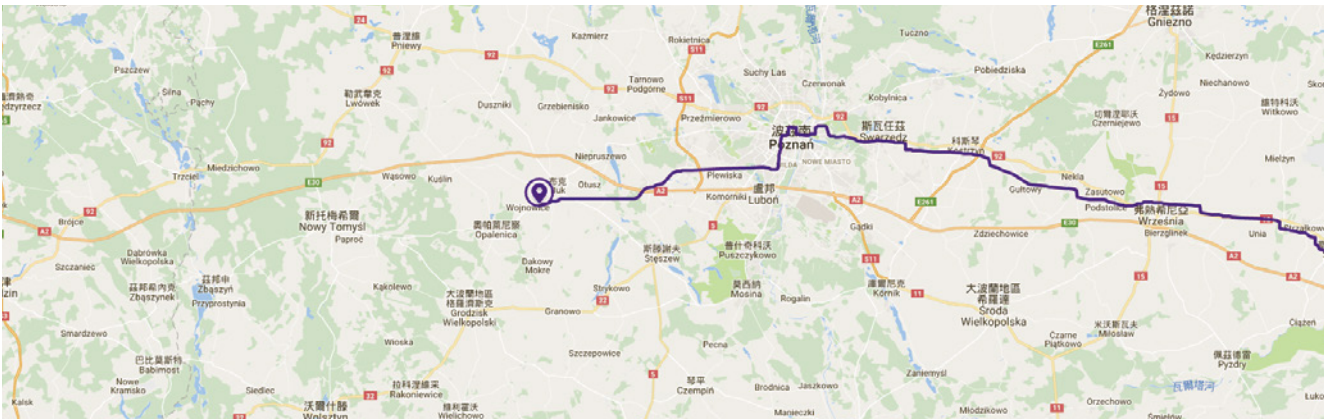
Failover Solution

Reliable backup system designed to transfer recording tasks from N sites to M sites upon the rare occurrence of disk or other mal-function.



Transportation Solution

VAST 2 can trace vehicles through information provided from GPS receivers, track vehicles' real-time location, and playback videos with recorded visited paths.



Transaction Solution

Retains all transaction details including not only POS data but also associated video footage to create deeper POS knowledge. Enter search conditions to filter transactions more easily.



Name	Unit	Subtotal
Tomato	1	8
Banana	1	12
Drink	2	24
Cookies	4	28

Total: 72

Technical Specifications

Version	2.5		
General			
Auto Wizard	Plug & Play Auto Setup		
Max. Number of Cameras*	Unlimited		
Max. Number of Servers*	Unlimited		
Max. Number of Clients	Unlimited		
Supported OS	Windows 10, 7 Windows Server 2012, 2016 macOS Mojave 10.14 (Client Only)		
Supported Mobile App	iViewer (iOS/Android)		
Virtual Matrix	Supported (VAST 2 Matrix)		
Tabbed Browsing	Supported		
Devices Pack	Ver. 5.9.250		
LiveView (Local Display)			
Max. Channels*	64-channel per monitor (Supports up to 8 Monitors)		
Layout	Equal: 1x1, 2x2, 3x3, 4x4, 5x5, 6x6, 7x7, 8x8 Panorama: 1P+6, 2P, 2P+3, 3P Focus: 1+12, 1+16, 1+3, 1+5, 1+7, 1+9, 2+8 Vertical: 1V+6, 2V+2, 2V+3, 3V, 3V+4, 4V, 4V+4, 5V Single Layout Display		
Custom Layout	Supported		
Layout Configuration Saving	Supported		
Layout Rotation	Supported		
Stream Application	Stream Selection & Auto Streaming Size		
View Application	E-Map Embedded Drag & Drop Remote I/O Control PiP (Digital Zoom) Instant Playback Video Display Mode (Aspect Ratio & Camera Information) Metadata Display (VCA, POS and Data Magnet)		
Fisheye Dewarp Mode	1O, 1P, 1R, 1O3R, 4R, 2P, 4R Pro, 1O8R		
Fisheye Auto-Pan	Supported		
Wiper Blade Control	Supported		
Playback			
Max. Channels*	64-channel per monitor (the max. number of monitors supported depends on the decoding capability of your system)		
Layout		Equal: 1x1, 2x2, 3x3, 4x4, 5x5, 6x6, 7x7, 8x8 Panorama: 1P+6, 2P, 2P+3, 3P Focus: 1+12, 1+16, 1+3, 1+5, 1+7, 1+9, 2+8 Vertical: 1V+6, 2V+2, 2V+3, 3V, 3V+4, 4V, 4V+4, 5V Single Layout Display	
Custom Layout		Supported	
Playback Mode		Asynchronous & Synchronous	
Playback Control		Play, Rewind, Pause, Stop, Next/Previous Frame, 1/64X ~ 64X Speed Control, Bookmark	
Playback Timeline		Scale Adjustment Event Timeline Interval Display	
Search Mode		Calendar, Event, Alarm, Bookmark, Thumbnail, Smart Search II, Transaction (POS), Data Magnet, Log	
Evidence Lock		Supported	
Video			
Video Format		MJPEG, MPEG4, H.264 AVC, H.264 SVC, H.265	
Video Resolution		Up to 12 Megapixels	
Audio			
Audio Format		G.711, G.726, AMR, AAC	
Audio Capability		Two-way Audio	
Audio Control		Mute	
Record			
Additional Recording Time for Event Recording (sec.)		Pre-Record: 3-15, Post-Record: 10-60	
Recording Stream Type		Unicast	
Recording Stream		Single	
Recording Mode		Continuous, Event, Customized Schedule, Activity Adaptive Streaming	
Recycle Options		Recycling time depends on the remaining storage space or the set number of days	
Recording File Format		3GP	
External Storage Recording		NAS (SMB & CIFS)	
Alarm Management			
Alarm Period (sec.)		Max. 30	
Alarm Filter		Time, Trigger Type (Camera/Substation/System), Status, Name, Trigger Source	
Alarm Setting		Realtime System Notification	
Schedule Type		Continuous, Schedule	

Technical Specifications

Camera Source	<p>General: Motion detection, Camera DI, Camera DO, IR (Infrared), PIR (Passive infrared), Tampering detection, Temperature, Camera disconnected, Recording error, Stop recording, Video loss (Video server only), SD card life expectancy detection, Audio detection, Shock detection</p> <p>Smart VCA: Line crossing detection, Intrusion detection, Loitering detection, Face detection, Missing object detection, Unattended object detection, Crowd detection, Zone detection</p> <p>Trend Micro IoT Security: Brute force attack, Cyber attack, Quarantine event</p>	PTZ Operation	Direction Control, Home, Zoom, Focus, Preset, Patrol (Group), Tracking, Pan, Stop, Speed
Substation Source	<p>NV Series NVR: Abnormal G-sensor Motion, Speeding, GPS Disconnected</p> <p>ND Series NVR: Fan Status, Network Disconnected, Storage Failure, Storage Full, Number of remaining people, Brute force attack, Cyber attack, Quarantine event</p> <p>NR Series NVR: Network Disconnected, Storage Failure, Storage Full</p>	PTZ Operation Mode	Click to Move & Continuous Move
External Devices Event	DI/O (with I/O Box), TCP Message	Export	
Action	Start to record videos, Set DO status, Go to camera presets, Send HTTP requests, Send live streaming, Send email with snapshot of assigned camera(s), Go to E-Map, Sound the alarm and Add bookmark	Snapshot	PNG & JPEG
Alarm Result Display	List, Thumbnail	Export File	3GP & EXE
Alarm Status	New, In Progress, False Alarm and Close	Player	
Alarm Result Export	.csv / .3gp file	Layout	Single & Multiple layout display
Additional Time for Exported Alarm Clip (min.)	Pre-Triggered: 1~10; Post-Triggered: 1~60	Custom Layout	According to playback export layout configuration
Event Search		Drag to Play	Supported (VIVOTEK 3GP & MP4 files)
Type	General, Smart VCA, Trend Micro IoT Security events	Playlist	Drag & drop, Play selected videos, Play all videos, Delete selected videos, Delete all videos
Event Search Result Display	List, Chart	Playback Mode	Asynchronous & Synchronous
Event Search Result Export	.csv file	Playback Control	Play, Rewind, Pause, Stop, Next/Previous Frame, 1/64X ~ 64X Speed Control
eMap		Playback Timeline	Scale Adjustment Event Timeline Interval Display
Source	Import Picture & Folder	Snapshot	PNG & JPEG Snapshot for Dewarped Fisheye Camera
Adjustment	Vertical Angle Adjustment	Export Video	3GP
Marked	Add, Remove, Direction Control, PTZ Control, FOV Control, LiveView & Playback	Backup	
Event Notification	One or More Live Streaming	Schedule	NAS (SMB & CIFS)
PTZ		User Management	
PTZ Control	Mouse Draw & Drag Control	Authentication	Basic Account/Windows AD Account
		User Level	Administrator, Customized User
		User Control	Client Permission (Operation & Configuration) & Camera Permission
		System	
		Dashboard	Supported
		System Error List	Supported
		Server System Status Display	CPU/Memory/Network
		Client System Status Display	CPU/Memory
		Date & Time	Sync PC
		Network	SMTP & HTTPS

Technical Specifications

Language	Czech, English, French, German, Italian, Japanese, Korean, Persian, Portuguese, Russian, Spanish, Simplified Chinese, Traditional Chinese
Diagnostic Service	Supported
Log Management	Supported
Mac Client	Supported*

* Limitations of Mac Client

1. Video can only be exported in 3GP format.
2. AD login cannot be setup in Mac client.
3. Mac client only supports the joystick AJ001.

Device Integration

VIVOTEK's Camera	8000 & 9000 Series
VIVOTEK's NVR	ND & NR & NV Series (ND8321 excluded)
VIVOTEK's Software	VAST 2
Joystick	VIVOTEK Joystick AJ002
I/O Box	Advantech ADAM-6000 Series CHIYU CYT-133SC MOXA ioLogik E1210, E1211 and E1212
POS (Add-ons)	POSNET Lafresh Allsense (Implement in NVR, Searchable in VAST 2)

Camera Integration

Camera Insert	Manual & Search
Refresh Devices	Manual
Video Source	VIVOTEK, ONVIF & RTSP Streaming
Basic Setting	User Name, Password & Camera Model Detection
Connection Setting	Configuration Protocol: HTTP, HTTPS Streaming Protocol: TCP, UDP, HTTP, HTTPS
Video Setting	Video stream, codec, resolution, maximum frame rate, I-frame period, video quality, FPS, Maximum bit rate
Image Setting	Time stamp, Video title, Video orientation, Mount type (fisheye only), Color, Power line-frequency
Motion Detection Setting	Supported
ONVIF Profile	Profile S
ONVIF Stream	Video (H.264, MPEG4 & MJPEG) & Audio (G.711, One-way)
ONVIF Control	PTZ Control (Up, Down, Left, Right & Zoom In/Out)
ONVIF Discovery	Supported

ONVIF Event	Motion Event, DI/O, Video Lost/Restore
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VCA Solution

VCA for Surveillance	Line crossing detection, Loitering detection, Intrusion detection, Face detection, Missing object detection, Unattended object detection, Crowd detection, Zone detection
VCA for Business Intelligence	People Counting

Advanced Features

VIVOTEK Exclusives	Panoramic PTZ Seamless Recording Activity Adaptive Stream Smart Search II Smart VCA Integration Cybersecurity Management Solution Integration VCA Counting
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Add-ons**

Failover Solution	N x M System Structure
3rd Party Integration	TCP Message, Data Magnet
Transportation Solution	Google Map and User-Defined Maps Support, Vehicle GPS Tracking, Tracks Playback
Transaction Solution	POS Terminal Integration (Serial or Network Ports), Live Printing of Transactional Data, Transaction Corresponding Video Search
Integration Solution	TCP Trigger

* Please refer to System Requirements Page (<http://www.vivotek.com/vast2/#system>)

** Advanced license is required. (Additional charges may apply)

System Requirements

VAST 2 Server

Operating System	Windows 10, 7 Windows Server 2012, 2016		
Server (Recording Channels)	Up to 64-CH	Up to 128-CH	Up to 256-CH
CPU	6 th Generation Intel® Core™ i3 Processors or above		6 th Generation Intel® Core™ i5 Processors or above
RAM****	4 GB or above	8 GB or above	8 GB or above
Hard Drive (Enterprise Model Only) Suggestion	1 Volume Group*	2 Volume Group*	4 Volume Group*
Recording Throughput	1 Volume Group: Max. 200 Mbps**		
Network Interface Card	Ethernet, 1Gbit recommended***		

* The size of volume group depends on the total recording server throughput.

** The combined maximum bitrate of cameras cannot exceed the total recording throughput.

*** Please consider the throughput of viewing, recording and server's network bandwidth when designing your surveillance deployments.

**** Please use a dual-channel memory configuration.

VAST 2 LiveView & Playback

Operating System	Windows 10, 7 Windows Server 2012, 2016 macOS Mojave 10.14			
Client (Display Channels)	H.264, 720P, 2Mbps for Each Channel*	8-CH	16-CH	32-CH
	H.264, 1080P, 4Mbps for Each Channel**	6-CH	10-CH	18-CH
	H.265, 1080P, 4Mbps for Each Channel	3-CH	5-CH	9-CH
CPU	6 th Generation Intel® Core™ i3 Processors	6 th Generation Intel® Core™ i5 Processors	6 th Generation Intel® Core™ i7 Processors	
RAM***	8 GB or above	8 GB or above	16 GB or above	
Graphics Card****	1GB RAM, with Direct3D acceleration			
Network Interface Card	Ethernet, 1Gbit recommended***			

* Each recording group can receive recordings for 60 channels.

* Display requirements of a 3MP fisheye camera is equal to a 720P camera.

** Display requirements of a 5MP fisheye camera is equal to a 1080P camera.

*** Please use a dual-channel memory configuration.

**** Please update to the latest GPU driver.

If you plan to install both VAST 2 Server & Client on the same PC, please remember to consider the combined loading when evaluating system requirements.

- 60-day trial includes 256-channel camera license and all advanced license features.